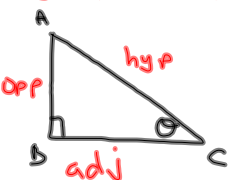


Trigonometry

SOH CAH TOA



$$\sin \theta = \frac{opp}{hyp}$$


$$\cos \theta = \frac{adj}{hyp}$$

$$\tan \theta = \frac{opp}{adj}$$

Apr 6-1:43 PM

State the 3 primary trig ratios for  $\theta$

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$$\sin \theta = \frac{4}{5}$$

$$\cos \theta = \frac{3}{5}$$

$$\tan \theta = \frac{4}{3}$$

$$\sin \theta = 0.8000$$

$$\theta = \sin^{-1}(0.8000)$$

$$\theta = 53.1^\circ$$

$$\theta = 53 \text{ (round to the nearest degree)}$$

Trig Ratios (4 decimals)

Apr 6-1:48 PM

Evaluate to four decimal places

$$\sin 55^\circ = 0.8192$$

$$\tan 125^\circ = -1.4281$$

obtuse triangle

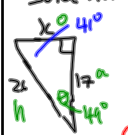
$\sin \{ \cos - 0 \text{ and } 1$

$\tan = \text{only primary trig ratio that can be above 1}$

Apr 6-1:55 PM

Solve for  $x$  (side to one decimal place angles to nearest degree)

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$$\cos \theta = \frac{adj}{hyp}$$

$$\cos \theta = \frac{17}{x}$$

$$\cos \theta = (0.6538)$$

$$\theta = \cos^{-1}(0.6538)$$

$$\theta = 49^\circ$$

Int  $\Delta = 180$

$= 180 - (90 + 49)$

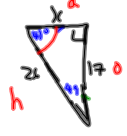
$= 180 - 139$

$= 41^\circ$

$$x \cos 41^\circ = \frac{26}{26}$$

$$26 \cos 41^\circ = a$$

$$26 (0.7547) = a$$

$$19.7 = a$$


$$a^2 + b^2 = c^2$$

$$17^2 + 26^2 = 26^2$$


$$b^2 = 26^2 - 17^2$$

$$b^2 =$$

Apr 6-2:03 PM

Solve for  $x$  (side to one decimal place angles to nearest degree)

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$$\cos \theta = \frac{adj}{hyp}$$

$$\cos \theta = \frac{17}{x}$$

$$\cos \theta = (0.6538)$$

$$\theta = \cos^{-1}(0.6538)$$

$$\theta = 49^\circ$$

OR

$$\sin 49^\circ = \frac{26}{x}$$

$$\sin 49^\circ = \frac{26}{x}$$

$$(0.7547) 26 = x$$

$$19.7 = x$$

Int  $\Delta = 180$

$= 180 - (90 + 49)$

$= 180 - 139$

$= 41^\circ$

$$a^2 + b^2 = c^2$$

$$17^2 + 26^2 = x^2$$

$$x^2 + 289 = 676$$

$$x^2 = 676 - 289$$

$$x^2 = 387$$

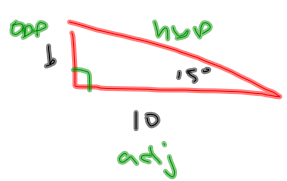
$$x = \sqrt{387}$$

$$x = 19.7$$

Apr 6-2:03 PM

36)

SOH CAH TOA



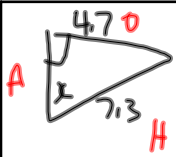
$$\tan 15^\circ = \frac{b}{10}$$

$$10 \tan 15^\circ = b$$

$$2.7 = b$$

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Solve for  $\angle C$  and  $\angle A$



$\sin = \frac{o}{h}$

$\sin \angle C = \frac{4.7}{7.3}$

$\sin \angle C = 0.6438$

$\angle C = \sin^{-1}(0.6438)$

$\angle C = 40.1^\circ$

Apr 6-2:12 PM

$p 260-262$

$\{1-6, 7, 10\}$

Apr 6-2:15 PM